Remarks

This paper responds to the Office Action in the above-entitled application, mailed August 3, 2005, and allowing three months for a response. This response is timely because it is being filed within the period set for a response.

Claims 1-9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Pat. No. 6,344,157 (Cheng et al.) ("Cheng"). Applicants respectfully traverse the rejections for the reasons detailed below.

35 U.S.C. § 102 (Novelty)

Applicant respectfully submits that claims 1-9 are novel over Cheng.

As the Office Action pointed out, Cheng discloses a composition comprising a polymeric resin, a conductive filler, and an oxygen scavenger or corrosion inhibitor or both, optionally other additives such as reactive or nonreactive diluents, inert fillers, and adhesion promoters. The optional reactive or nonreactive diluents disclosed in Cheng are all organic compounds. Cheng does not teach water in its chemical compositions. In fact, as evidenced by the examples of Cheng, the chemical compositions of Cheng are all organic compositions wherein no water is added. Cheng teaches that its chemical compositions containing the polymeric resin, conductive filler and other additives "are used in the fabrication of electronic packages, for example, as adhesives, encapsulants, or to form integral passives, such as resistors or capacitors." (Cheng, col. 4, lines 1-4.)

On the other hand, the compositions claimed in claims 1-9 of the present application are aqueous carbon dispersions wherein the conductive carbon and corrosion inhibitor are dispersed in water. Such a composition is substantially different from an organic composition containing polymeric resin, conductive carbon and, optionally, other organic diluents.

Claim 1 is distinguished from Cheng because Cheng does not teach a composition containing conductive carbon and a corrosion inhibitor that are dispersed in water. Claim 1 and claims 2-9 that depend from claim 1 are therefore novel.

35 U.S.C. § 103 (Non-obviousness)

The Office Action alternatively rejected claims 1-9 under 35 U.S.C. 103(a) as obvious over Cheng.

Applicants respectfully submit that the change from the organic composition of Cheng to the aqueous composition of the present application is not obvious, as there is no teaching or motivation in Cheng for a person of ordinary skill in the art to make this change.

Further, because polymeric resin is needed for the chemical compositions of Cheng, there will be no reasonable expectation of success to use water as a diluent to make the compositions.

Moreover, Applicants surprisingly found that by adding a small amount of a corrosion inhibitor directly into an aqueous carbon dispersion, the dissolution of metal from a metallic surface in contact with an otherwise corrosive aqueous dispersion can be reduced or stopped in situ. Nothing in Cheng or other prior art of record suggests a reasonable expectation of success of such a composition. The Cheng composition has a different effect, as it is disclosed to prevent the formation of an oxide coating on a metal surface. The present invention not only prevents the formation of an oxide, but also prevents dissolution of metal from the surface, which is a surprising result. (See Examples 1, 3 and 5)

Therefore, claims 1-9 are non-obvious in view of the prior art of record.

Conclusion

In view of the above amendments and remarks, Applicants respectfully request reconsideration and allowance of all the pending claims (1-9). A Notice of Allowance is respectfully solicited.

No fee is believed to be due, but the Commissioner is authorized to charge any additional fees or credit overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

Respectfully submitted,

DATE: November 3, 2005

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